

REMARKS/ARGUMENTS

Claims 1 and 19 have been amended by incorporating subject matter from claims 3, 6 and 10 into them. Support for these amendments also exists, *inter alia*, at page 6, lines 1-9, and page 10, lines 9-15 of the present application.

Claim 6 has been amended to conform to claim 1 as amended, and claim 23 has been amended to conform to claim 19 as amended.

New claim 32 has been added, support for which exists, *inter alia*, in claim 1 and claim 7 as well as page 3, line 39 and page 7, lines 15-23.

New claims 33-36 have also been added, support for which exists, *inter alia*, at page 11, lines 21-24.

Claims 1-3, 6-15 and 17-34 are currently pending, although claims 14, 15, 17 and 18 have been withdrawn. Upon indication of allowable subject matter, Applicants currently intend to seek rejoinder of withdrawn claims as appropriate.

The Office Action rejected claims 1, 2, 19, 20 and 22 under 35 U.S.C § 102 as anticipated by U.S. patent 4,820,328 (“Roberts”); claims 1, 2, 19, 20 and 22 under 35 U.S.C § 103 as obvious over U.S patent 3,170,781 (“Keefer”) in view of U.S. patent 3,203,816 (“Bull”) and U.S. patent 4,358,304 (“Froberg”); claims 3, 10, 21, 27 and 31 under 35 U.S.C § 103 as obvious over Keefer in view of Bull and Froberg, further in view of U.S. patent 4,632,687 (“Kunkle”); claims 6 and 23 under 35 U.S.C § 103 as obvious over Keefer in view of Bull and Froberg, further in view of U.S. patent 4,427,429 (“Tiilika”); claims 7-9, 13, 24-26 and 30 under 35 U.S.C § 103 as obvious over Keefer in view of Bull and Froberg, further in view of U.S. patent 2,492,523 (“Coffeen”); and claims 11, 12, 28 and 29 under 35 U.S.C § 103 as obvious over Keefer in view of Bull and Froberg, further in view of Kunkle, Tiilika and U.S. patent 4,106,946 (“Ritze”). In view of the following comments, Applicants respectfully request reconsideration and withdrawal of these rejections.

Initially, Applicants note that claims 1 and 19 have been amended by incorporating subject matter from claims 3, 6 and 10 into them.

The above anticipation rejection based on Roberts did not include claims 3, 6 or 10. Accordingly, Applicants respectfully submit that the above amendments have rendered the anticipation rejection moot, and that the rejection should be reconsidered and withdrawn.

Similarly, none of the pending obviousness rejections included all three of these claims (claims 3, 6 and 10). Accordingly, Applicants respectfully submit that the above amendments have rendered the obviousness rejections moot, and that the rejections should be reconsidered and withdrawn.

For at least these reasons the pending rejections are improper and should be reconsidered and withdrawn.

Furthermore, with respect to the anticipation rejection based on Roberts, the Examiner assumes that Roberts' electrodes are the same as the required burners. However, Roberts makes clear that electrodes are not burners, as Roberts refers to burners later on in his patent (separate and apart from his heating electrodes)(see, col. 10, lines 23-25). Accordingly, the Examiner's assumption is incorrect. This assumption is further demonstrated to be incorrect given the homogenization effect which the claimed burners have (see, page 5, line 12 et seq of the present application). Roberts achieves homogenization through means other than his heating elements (see, col. 3, lines 7-12), meaning that the claimed burners and Roberts' electrodes are not the same and do not have the same effect. Given that the Examiner's assumption is incorrect, the anticipation rejection based on this assumption must fail.

For these reasons as well, Applicants respectfully request reconsideration and withdrawal of the pending anticipation rejection.

With respect to the pending obviousness rejections, the Office has previously recognized that Keefer in view of Froberg does not disclose a temperature difference among

the tanks of at least 80°C. (See, Office Action dated January 22, 2010 at page 7). Further, Bull neither teaches nor suggests the required temperature conditions for the first and second tanks. Thus, one of ordinary skill in the art would not be led to the required tank series having the required temperature conditions by the asserted combination of references. For at least this reason the pending obviousness rejections are improper and should be reconsidered and withdrawn.

Moreover, Keefer teaches a tank in series with a refiner. A refiner is a compartment in which eliminates fine bubbles created by melting. To do this, several techniques can be used, the most prevalent being to simply wait under elevated temperature conditions (waiting = slow flow over a long path). Another technique is creating big bubbles in the refiner -- big bubbles will capture the small bubbles and the bubbles will rise rapidly the surface of the molten glass. This is what Keefer does in his refiner. Generally speaking, a refiner works at higher temperatures than a melt tank because the higher temperature of the refiner lowers the viscosity of the melt and the bubbles rise more rapidly. The second tank of the present invention is not a refiner. Thus, art such as Keefer in which the second tank is a refiner is inapposite and would not lead to the present invention. This is particularly true given that the claims as amended require introducing into the second tank a vitrifiable material selected from the group consisting of a thinner, a metal oxide, and mixtures thereof.

Nothing in the tertiary or quaternary references can compensate for the above-noted deficiencies. Nothing in any of the ancillary references would change the lack of combinability of the applied art, particularly the refiner art, nor would any of these references lead one of ordinary skill in the art to use the required burners in the required tanks at the required temperature conditions.

The applied art does not teach or suggest introducing most of the silica into a tank containing a submerged burner, forming a melt in a tank containing a submerged burner,

introducing into the second tank a vitrifiable material selected from the group consisting of a thinner, a metal oxide, and mixtures thereof, and/or having a first tank containing such a submerged burner being heated to a higher temperature than the other tanks in the furnace under the required temperature conditions. None of the applied references, alone or in combination, would lead one of ordinary skill in the art to the invention processes.

For these reasons as well, Applicants respectfully request reconsideration and withdrawal of the pending obviousness rejections.

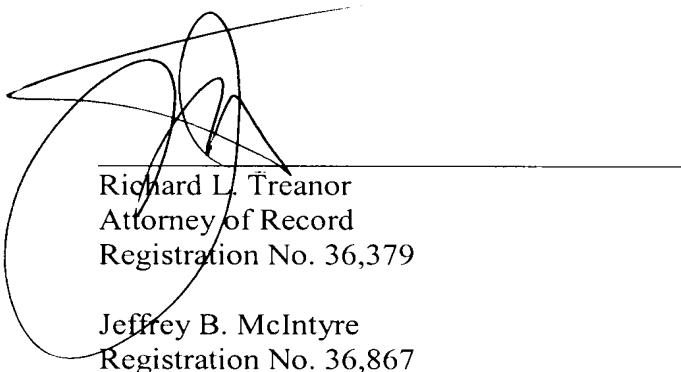
In view of the above, Applicants respectfully request reconsideration and withdrawal of all of the rejections under 35 U.S.C §§102 and 103.

The Office Action also rejected claims 1-3, 6-11, 13 and 19-28 under the judicially created doctrine of obviousness type double patenting over claims in U.S. patent application serial no. 11/658,760 (“the ‘760 application”). Although Applicants disagree with this rejection, solely to expedite prosecution in this case, Applicants submit herewith a terminal disclaimer over the ‘760 application. In view of the terminal disclaimer, Applicants respectfully submit that the obviousness type double patenting rejection has been rendered moot and should be reconsidered and withdrawn.

Applicants believe that the present application is in condition for allowance. Prompt and favorable consideration is earnestly solicited.

Respectfully submitted,

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